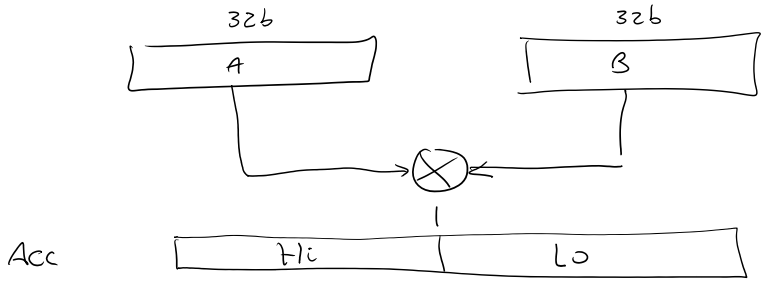
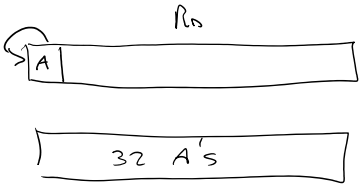
Lecture 6 - MIPS Programming

Thursday, February 6, 2020 10:55 AM

Objectives:	- Learn about the MIPS Instruction Set - Learn how to write assembly language programs - Learn about MIPS arithmetic operations - Begin learning how to design code using pseudocode

INTEGER MULTIPLICATION C = A X B





mulo $R_D, $R_S, $R_T ⟶ mult $R_S, $R_D
mfhi $at
mflo $R_D
sra $R_D, $R_D, 31
beq $at, $R_D, OK
[INSTRUCTIONS TO DEAL WITH OVERFLOW]

OK: OTHER INSTRUCTIONS

MIPS SIMULATORS
PC SPIM } WINDOWS
QT SPIM }

MARS - MACOS

REGISTER	USAGE
t0 -	LOOP COUNTER
a0 -	ACCUMULATOR
a1 -	CURRENT VAL BEING ADDED